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DAVIDSON BERQUIST JACKSON & GOWDEY LLP
4300 WILSON BLVD., 7TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
DISTEFANO, GREGORY A	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/792286
Filing Date: 3/4/2004
Appellant(s): Boyle et al.

Michael R. Casey (Reg. No. 40,294)

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/3/2011 appealing from the Office action mailed 8/3/2010.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 5,828,372	Kameda	10-1998
US 7,162,407	Poley et al.	01-2007
US 2002/0038334	Schneider et al.	03-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (US 2002/0038334), hereinafter Schneider, in view of Poley et al. (US 7,162,407) hereinafter Poley.

As per claim 1, Schneider teaches the following:

utilizing a universal serial bus (USB) protocol to provide absolute movement of the mouse cursor (forced to cross-hairs*) on a host computer to an absolute position* (pseudo-cursor) *other than the origin if the operating system supports the use of a USB-based human interface descriptor (HID) using absolute movement of the mouse cursor to an absolute position other than the origin*, (pg. 9, paragraph [0087]), i.e. the controlling computer 12 generates a pseudo-cursor (e.g. a set of cross-hairs) that indicates where the digitized cursor should be. To initialize this process, the digitizer control application 220 sets the cursor of the target computer to a known location. For

example, by sending to the target computer a series of mouse commands, it is possible to drive the cursor to the upper left hand-corner, no matter where the cursor was prior the series of commands. The original cursor is then forced back down to be aligned with the cross-hairs;

synchronizing the position of a logical mouse and the position of the actual mouse the absolute movement to the absolute position other than the origin without operator intervention. As Schneider describes in pg. 3, paragraph [0031], the re-alignment of a controlled pointer to the pseudo-cursor happens automatically within the system itself.

However, Schneider does not explicitly teach a method of testing the operating system of the logical mouse to determine if it supports USB HID. Poley teaches the following:

testing an operating system of the logical mouse to determine if the operating system of the logical mouse supports the use of a USB-based human interface descriptor (HID) using absolute movement of a mouse cursor to an absolute position other than the origin, (column 2, lines 23-27), i.e. Fig. 1 shows a test system 10 for testing an in-test host's support of peripherals that use a given peripheral communications protocol. In the exemplary embodiment described herein, the test system is designed to test support for USB peripherals;

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cursor control method of Schneider with the system testing of Poley. One of ordinary skill in the art would have been motivated to

have made such modifications because as Poley teaches in column 1, lines 36-40, "because of the popularity of USB peripherals, it is highly desirable to provide USB support in new computer products. However, it can be a challenging task to adequately test the USB support of a new computer product in light of the many different types and makes of available USB peripherals". Furthermore, Schneider discusses testing systems in pg. 7, paragraph [0072].

Regarding claim 2, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

a virtual presence client (VPC) calculates said logical mouse position. As Schneider teaches in pg. 9, paragraph [0087], either the digitizer control application 220 or the analyzing digitizer control application 240 may control the controlled cursor position to force it to a received position.

Regarding claim 12, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

utilizing the universal serial bus (USB) protocol to provide the absolute movement of the mouse cursor comprises sending USB commands across an IP network, (pg. 3, paragraph [0029]), i.e. the controlling computer 12 also includes a communications device 53 for communicating with the target device(s). Such a device 53 may include (1) a modem for connecting via a telephone connection, (2) a wireless transceiver for wirelessly communicating, and (3) a wired adapter (e.g. an Ethernet or

token ring adapter). In any of those configurations, the controlling computer 12 communicates with a target controller 50 using any selected communications protocol (e.g. TCP/IP, UDP or RDP).

Regarding claim 13, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

buffering USB commands between the actual mouse and the host computer, (pg. 3, paragraph [0035]), i.e. the target controller 50 operates to capture the video output of the target device. The captured video signals are stored in either a frame buffer internal to the controller card or in a memory shared with other components of the computer. In addition, the controller card 50 fills a set of keyboard/mouse buffers internal to the controller card with keyboard and mouse commands to be sent to the target device.

Regarding claim 15, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

aggregating mouse movement commands prior to sending the mouse movement commands across the IP network, (pg. 9, paragraph [0088], i.e. in order to avoid overloading the target computer with mouse packets, the digitizing control application 220 can queue mouse commands and send those mouse commands as a group.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider in view of Poley as applied to claim 1 above and further in view Kameda (US 5,828,372).

Regarding claim 14, Schneider teaches the method of claim 1 as described above. However, Schneider does not explicitly teach a method where the timing of the cursor commands are emulated on the controlled system. Kameda teaches the following:

emulating the timing characteristics of the actual mouse when applying USB commands to the host computer, (column 6, lines 35-44), i.e. the terminal controller 103 causes the output information to be displayed on the display device 101 of user A. At the same time, the output information is transferred by the terminal controller 103 through the communication line 106 to the terminal controller 109 of user B. The terminal controller 109 causes the display device 107 to display the output information. Thus, the same output information generated by the application program 105 will be displayed on the display devices 101 and 107 of users A and B, respectively. The examiner would like to note that as Kameda's method of controlling the cursor on a controlling device and a controlled device at the same time, the timing of both cursor movements would be the same, thus the commands on the host computer emulate the timing characteristics of the actual mouse.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cursor control method of Schneider with the real-time control method of Kameda. One skilled in the art would have been motivated to have made such modifications because both Schneider and Kameda are analogous art in the field of remotely controlling separate display devices, specifically, cursors

displayed on those devices. Furthermore, Kameda directly states a problem which they look to address in column 1, lines 47-50, that “user B may experience some difficulty in learning how to manipulate the application program due to the speed at which information displayed on the display screen changes", thus describing a desire in the art to present information at a speed in which a controlling computer is operated.

(10) Response to Argument

Ground No. 1 –Schneider does not explicitly teach or suggest "Absolute" movement (claim 1):

Appellant argues on pages 5-7 of the brief that Schneider's method of cursor movement does not comply with "Absolute" movement as Schneider utilizes "relative" cursor movements. Appellant's arguments are mainly directed to Appellant's opinion as to the definition of absolute movement as opposed to relative movements and how Schneider's method does not utilize absolute movement.

The examiner respectfully disagrees.

Appellant's best support for "absolute movement" in their original disclosure may be found in the specification on page 12, paragraph [0035], where appellant states "*human interface descriptors (HIDs) are utilized, which can define many different types of devices, some of which support moving a pointer to an absolute position (e.g.,* ***move to coordinates x543, y234****)*". As may be seen in Appellant's disclosure, Appellant describes "absolute movement" to be the movement of the cursor to an absolute position, i.e. a set point on the display which is known. Appellant is mute as to how such movement occurs, only that the cursor arrives at such an absolute position. Therefore, the examiner interprets "absolute movement" to be loosely defines as any movement of the cursor which causes the cursor to arrive at an absolute position. Such "absolute movement" is taught by Schneider in pg. 9, paragraph [0087]. In particular,

Schneider teaches "the controlling computer 12 generates a pseudo-cursor (e.g. a set of cross-hairs) that indicates where the digitized cursor should be". The location of this pseudo-cursor is interpreted as encompassing an "absolute position" as the position of the pseudo-cursor is a set point on the display which is known. Schneider's method than forces the cursor to the position of the pseudo-cursor. While appellant argues that Schneider's method utilizes relative movements to cause said cursor to arrive at said position, such movements are interpreted as irrelevant as, as described above, "absolute movement" is interpreted to be any movement utilized to move the cursor to an absolute position.

Ground No. 2 –Neither Schneider nor Poley explicitly teach or suggest Testing for Support of HIDs Using Absolute Movement (claim 1):

Appellant argues on pages 7 and 8 of the brief that as Schneider fails to teach the method of absolute movement, it would be impossible for Schneider in view of Poley to teach or suggest "testing an operating system of the logical mouse to determine if the operating system of the logical mouse supports the user of USB-based human interface descriptor (HID) using absolute movement of a mouse cursor to an absolute position other than the origin".

The examiner respectfully disagrees.

Firstly, the examiner would like to note that this limitation is loosely interpreted as meaning the "absolute movement", as discussed above in Ground No. 1, is used to test

an operating system to determine if the operating system supports USB-based HIDs. The claim is not read as testing an operating system to determine is the operating system supports "absolute movement". Poley directly teaches in column 2, lines 44-47 that the test system may be designed for compatibility with HID USB devices. Furthermore, Poley teaches in column 2, line 64 - column 3, line 30, that mock USB commands are sent to the system which is being test to see if the USB device is supported. Poley never limits themselves as to the type of mock commands which may be sent for the purpose of testing a system. As described above in Ground No. 1, Schneider is cited as sending cursor movement commands for the purposes of "absolute movement". Upon the modifications of Schneider in view of Poley, the movement commands of Schneider may be sent as the mock commands of Poley for the purposes of testing the support of an in-test system.

Ground No.3 –There is no motivations to combine Schneider in view of Poley (claim 1):

Appellant argues on page 9 of the brief that both Schneider and Poley teaching of system testing is insufficient motivation for combination thereof due to methods of testing being directed to different aspects of systems.

The examiner respectfully disagrees.

As described above in Ground No. 2, Poley never limits themselves to the types of USB commands which may be sent for the purpose of testing the compatibility of in-test system. This leads the examiner to believe that any such USB commands may be

utilized as mock commands to test for compatibility. One of ordinary skill would have been motivated to have made such modifications because not only do both Schneider and Poley teach of system testing, but Poley teaches of sending USB commands to remote systems for the purpose of cursor control and Schneider teaches of sending mock USB signals to a remote system for the purpose of compatibility testing.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/GREGORY A DISTEFANO/

Examiner, Art Unit 2175

Conferees:

/WILLIAM L. BASHORE/

Supervisory Patent Examiner, Art Unit 2175

/Kieu Vu/

Supervisory Patent Examiner, Art Unit 2173